

specimens exactly typical occur at Ibuki, Omi. It is much less striate than *japonica*. In the specimens I have seen the surface is dull from loss of the cuticle, which is evidently deciduous and very thin. It varies in color from white or sulphur-yellow to deep crimson. Some shells from Kotsuzan, Awa (Shikoku) having all other characters of *reinii*, have the last whorl covered with glossy cuticle like the small form *expolita*. *Reinii* may prove to be specifically distinct from *H. japonica*, and for the time being may be so considered.

The various forms may be tabulated thus:

- I. Shell distinctly striate or costulate (*H. japonica*).
 1. Striation close and fine.
 - a. Diam. 7 to 8 mm., typical *H. japonica*.
 - b. Diam. 9 to 11 mm., *H. japonica*, var. from Harima.
 - c. Diam. 15 to 16 mm., *H. japonica* var. *uzenensis*.
 2. Very coarsely ribbed; diam. 10-11 mm., *H. japonica* var. *echigoensis*.
- II. Surface not distinctly striate (*H. reinii*).
 1. Surface dull, denuded of cuticle; diameter 12 to 15 mm., typical *H. reinii*.
 2. Surface covered with a smooth, polished cuticle; diam. 10 to 13 mm., *H. reinii* var. *expolita*.

H. j. echigoensis is a new variety from Omimura, Echigo, types no. 84384, A. N. S. P., from no. 575a of Mr. Hirase's collection. It is strongly and coarsely ribbed.

A NEW CONUS FROM THE TERTIARY OF FLORIDA.

BY T. H. ALDRICH.

Conus waltonensis n. sp.

Shell medium in size, substance rather thin; spire elevated, with nine whorls, including the apex, which is rather sharp, profile of spire slightly broken by a shoulder just above the suture on each whorl, the suture impressed, each whorl of the spire concave, and marked by numerous curved lines; periphery sharp; body whorl below the keel in some specimens over one-half smooth, then below this bearing two or three spirals of evenly-spaced nodules without any grooves between, gradually changing to rows of nodules on bands

between grooves, which are eight or ten in number, the nodules fading away as the canal is reached, but in the type specimen the nodules are present over the whole of the smooth part without, however, any grooves between. Anal notch rather deep, and marking the spire



with its former positions; outer lip thin, pillar lip straight with a very slight twist; aperture straight above, widening near the base.

Length 20 mm., max. diameter 12 mm.

Locality: Shoal Creek, Walton county, Florida.

Remarks: This shell bears a close resemblance to *Conus puncticulatus* Hwass, and is doubtless an ancestral form, thus adding another link to the chain of evidence of a connection between the Atlantic and Pacific Oceans during Tertiary times.

This species has been in my possession for many years and until lately was not known to me from any other locality, but on looking over some specimens of fossils from the Number 2 well of the Mobile Oil Co., bored near Mobile, Alabama, I found two or three specimens of it, and from its position over three hundred feet above the Oak Grove (Fla.) horizon in this well, it would seem to indicate that this deposit on Shoal Creek is much younger than the Oak Grove beds. The assignment of these beds to the Oligocene must, in the writer's opinion, be better substantiated than at present. There are so few species common to the "Chipola" of Dall and the Vicksburg formation, it would seem better to confine the use of the term "Oligocene" to the latter, which is in accordance with Conrad's original diagnosis, and put the Chipola, Shoal Creek and Chattahoochie beds into one formation, calling them all Miocene, and if this should eventually be done, then this formation should bear the name its discoverer, D. W. Langdon, Jr., gave it of "Chattahoochie."

D. G. Harris figures a *Conus puncticulatus* Hwass from the Galveston deep well. It is probably the same species as the one herein described. The pustules on the living shell appear to be in the grooves while on the fossil form they are between them.